Paper No. 36

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte RANDELL L. MILLS

Appeal No. 2004-0883
Application No. 09/220,970

HEARD: JANUARY 25, 2005

Before THOMAS, FLEMING, and LEVY, ***Administrative Patent Judges***.

LEVY, ***Administrative Patent Judge***.

REMAND TO THE EXAMINER

We remand this application to the examiner for consideration of the following matters; see 37 CFR § 41.50(a)(1). This application is on appeal under 35 U.S.C. § 134 from the examiner's rejection[1] of claims 51-66, 69-95, 98-176, 181-205, 208-231, 233-276 and 278-322. Claims 1-50 have been canceled. Claims 67, 68, 96, 97, 177-180, 206, 207, 232 and 277 have been objected to by the examiner. In the non-final Office action (Paper No. 17, mailed July 19, 2001) mailed just prior to the filing of this appeal, the

[1] Although the claims have not been finally rejected, they have been rejected twice; see 35 U.S.C. § 134.

examiner (pages 6-30) set forth the following rejections of the claims:

I. Claims 61-64, 71-76, 98-113, 123-155, 171-174, 181-196, 208-233, 233-265, 294-298, and 307-322 stand rejected under 35 U.S.C. § 112(2) as being indefinite and/or incomplete.

ii. Claims 127-155, 237-265, 294-298 and 307-322 stand rejected under 35 U.S.C. § 101 as being drawn to non-statutory subject matter.

iii. Claims 157, 266 and 267 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Kortge.

iv. Claims 271, 272, 274, 276, 278, 281-283, 285-288, 290, 291, 299-301, 304-309 and 312-320 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Caid.

v. Claims 158, 159, 268 and 269 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kortge in view of Streit.

vi. Claims 279, 280, 289, 292, 293, 302, 303, 321 and 322 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Caid in view of Streit.

vii. Claims 156, 270, 273, 275 and 284 under 35 U.S.C. § 103(a) as being unpatentable over Caid in view of Dickhaus.

viii. Claims 51-54, 57-60 and 118-120 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Greenspan.

ix. Claims 55, 87-90, 114, 117, 160-165, 167-170, 197-200, 224 and 227-230 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Greenspan in view of Kortge.

x. Claim 56 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Greenspan in view of Strait.

xi. Claims 115, 116, 166, 225 and 226 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Greenspan in view of Kortge and Streit.

xii. Claims 65, 66, 69, 70, 91, 94, 95 and 121 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Greenspan in view of Dickhaus.

xiii. Claims 175, 176, 201, 203-205 and 231 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Greenspan in view of Kortge and Dickhaus.

xiv. Claims 92 and 93 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Greenspan in view of Dickhaus and Levien.

xv. Claim 202 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Greenspan in view of Kortge, Dickhaus and Levien.

In the examiner's answer (page 8), the examiner withdrew all but the following rejections (answer, pages 8-16):

1. Claims 307-322 stand rejected under 35 U.S.C. § 101 as being drawn to non-statutory subject matter.

2. Claims 157 and 267 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Kortge.

3. Claims 271, 272, 274, 276, 278, 281-283, 285-288, 290, 291, 299-301, 304-309 and 312-320 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Caid.

4. Claims 158, 159, 268 and 269 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kortge in view of Streit.

5. Claims 279, 280, 289, 292, 293, 302, 303, 321 and 322 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Caid in view of Streit.

6. Claims 156, 270, 273, 275 and 284 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Caid in view of Dickhaus.

Accordingly, only claims 156-159, 267-276, 278-293, and 299-322 remain before us for decision on appeal.

From our review of the record, we find that the application is not in condition for decision on appeal. For example, in the

rejection of claims 271, 272, 274, 276, 278, 281-283, 285-288, 290, 291, 299-301, 3-4-309 and 312-320 under 35 U.S.C. § 102(e) as being unpatentable over Caid, the examiner, in rejecting these 32 claims, provides a discussion of Caid without specific reference to any particular claim, and then provides a specific discussion for only claim 304.

From our review of the general discussion provided by the examiner, we do not find a direct one-to-one correspondence between the disclosure of Caid and the specific limitations of the claims. Although the examiner refers to portions of the Caid reference, the examiner does not explain how the portions of the reference relied upon meet all of limitations of the specific claims. As an example, although the examiner (answer, page 10) refers to the use of a "Fourier Series in Fourier Space" in Caid (column 5, lines 1-16 and col. 5, line 61 to column 6, line 14), we find no disclosure of this in Caid, notwithstanding the examiner's assertion to the contrary. It appears that the examiner has not considering the term "Fourier Series in Fourier Space," but rather simply looked for a disclosure of a Fourier Series. Because only 1 claim out of 32 claims in the rejection are referred to by number, and we are unable to determine from the reference how Caid

anticipates the claims, we are unable to determine how the examiner considers the limitations of each of the claims to be anticipated.

Thus, as it is unclear from the examiner's answer exactly how the examiner considers the claims to be anticipated by Caid, the application is not in condition for decision on appeal.

However, from our review of the record, we find that the application can best be disposed of in the following manner:

Appellant bases patentability, inter alia, on the definitions of terms "Fourier Series in Fourier Space" and "Probability Operand" that appellant has "coined." From our review of the detailed specification, we were unable to locate a specific definition of these terms with reasonable clarity, deliberativeness, and precision.

As our reviewing court states, "[T]he terms used in the claims bear a "heavy presumption" that they mean what they say and have the ordinary meaning that would be attributed to those words by persons skilled in the relevant art." Texas Digital Systems, Inc. v. Telegenix, Inc., 308 F.3d 1193, 1202, 64 USPQ2d 1812, 1817 (Fed. Cir. 2002). Moreover, when interpreting a claim, words of the claim are generally given their ordinary and accustomed meaning, unless it appears from the specification or the file history that

they were used differently by the inventor. Carroll Touch, Inc. v. Electro Mechanical Sys., Inc. 15 F.3d 1573, 1577, 27 USPQ2d 1836, 1840 (Fed. Cir. 1993). Although an inventor is indeed free to define the specific terms used to describe his or her invention, this must be done with reasonable clarity, deliberateness, and precision. In re Paulsen, 30 F.3d 1475, 1480, 31 USPQ2d 1671, 1674 (Fed. Cir. 1994).

In analyzing claims, we begin with the language of the claims. We then look to the specification for an understanding of these terms in the context in which they are used. If the terms are not specifically defined, we look to a technical dictionary, if possible, to ascertain how an artisan would understand the terms. As appellant has coined the phrases "Fourier Series in Fourier Space" and "Probability Operand," we need not look for a dictionary definition of these terms. We add that in prosecution before the PTO, claims are interpreted differently than by the courts, in that we give the claims their "broadest reasonable interpretation," and do not read limitations into the claim that are not found therein; see In re Morris, 127 F. 3d1048, 1054-1055(Fed. Cir. 1997).

Because a substantive issue on appeal is whether the applied prior art contains the claimed "Fourier Series in Fourier

Space" and "Probability Operand," at the Oral Hearing, the Panel made a Request For Information under 37 CFR § 1.105(a)(1) and 37 CFR § 41.50(c)(effective September 13, 2004); see also former rule 37 CFR 1. 196(d). Specifically, the panel requested that appellant either (a) point to the definitions for the terms "Fourier Series in Fourier Space" and "Probability Operand" in the specification, or (b) provide specific definitions of these terms, and (c) if definitions were provided, to point to the language in the specification that supports the definition in the specification as originally filed. In a Communication filed, via facsimile, on January 27, 2005, appellant responded to the Request For Information, with a paper providing explicit definitions for the terms "Fourier Series in Fourier Space" and "Probability Operand," and additionally pointed out the portions of the specification, as originally filed, that support these definitions. The definitions provided define "Fourier Series in Fourier Space" as "**[a] Fourier series in Fourier space is a sum of trigonometric functions in frequency space where each variable is frequency and the parameters of the Fourier series are input data or processed input data.**" In addition, the definition provided for "Probability Operand" is "**[a] probability operand is a system that returns a binary number in**

response to a probability-expectation-value or activation-probability-parameter input according to a specific statistic. The value of the operand causes a specific action, such as adding Fourier series to form a string, storing a summed Fourier series to memory, or activating a component of the system." From our review of the information provided, we find that although it did not appear, at first blush, that the terms "Fourier Series in Fourier Space" and "Probability Operand," were described in the specidfication as filed, we are convinced that there is adequate basis for these terms in the originally filed specification.

From the specific definitions provided, we find that the claims rejected over prior art distinguish over the applied prior art, for the reasons set forth by appellant in the briefs. However, the Communication filed by appellant is not an amendment, and is not part of the specification. However, if put into an amendment, the proffered definitions would not introduce new matter into the specification.

37 CFR § 41.50(c) sets forth that:

> The opinion of the Board may include an explicit statement of how a claim on appeal may be amended to overcome a specific rejection. When the opinion of the Board includes such a statement, appellant has the right to amend in conformity therewith. An amendment in

> conformity with such statement will overcome the specific rejection. An examiner may reject a claim so-amended, provided that the rejection constitutes a new ground of rejection.

Although the amendment will be directed to the specification and not to the claims, the definitions are evidence which relate to the claims, and therefore will result in an amendment that changes the scope of the claims and distinguishes the claims from the applied prior art. In view of our finding that the amendment will provide specific definitions for terms in the claims, we remand the application to the examiner to allow appellant to file an amendment consistent and coextensive with the Communication submitted to us on January 27, 2005, providing specific definitions for the terms "Fourier Series in Fourier Space" and "Probability Operand."

Our reason being that the definitions will limit the claims to the definitions of the terms provided, as well as to distinguish the claims over the applied prior art.

We observe that terms "Fourier Series in Fourier Space" and/or "Probability Operand" appear in each of the independent claims on appeal. Should the examiner decide to reapply the same prior art, or different prior art to the claims, the examiner is expected to provide a one-to-one correspondence between the language in the

claims and the disclosure of the references, which the examiner has not done in the present answer before us. Moreover, the Examiner must set forth a prima facie case. It is the burden of the Examiner to establish why one having ordinary skill in the art would have been led to the claimed invention by the reasonable teachings or suggestions found in the prior art, or by a reasonable inference to the artisan contained in such teachings or suggestions. *See* In re Sernaker, 702 F.2d 989, 995, 217 USPQ 1, 6 (Fed. Cir. 1983). In addition, should the examiner decide to reapply the same or different prior art against the claims in response to this remand, we request that the examiner additionally treat each rejected claim separately.

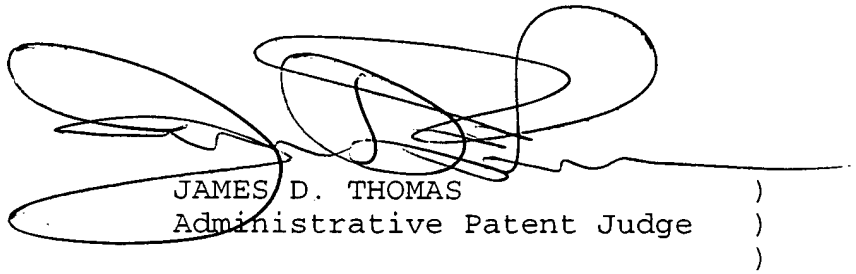
Additionally, as to claims 307-322, rejected under 35 U.S.C. § 101 as being drawn to non-statutory subject matter, if the examiner intends to repeat the rejection, the examiner should point out how the examiner considers independent claims 307 and 313 to be data structures, per se, in view of the limitations "A data structure in a memory . . . with information stored in said memory . . . a plurality of memory data objects . . . to thereby allow recognition of characteristics of said newly presented information

. . . in said information stored in said memory" of claim 307, and "A data structure in memory . . . comprising data stored in the memory . . . to achieve recognition of a pattern in information" as recited in claim 313.

In view of the above discussion, we remand this application to the examiner for consideration of the above-noted matters and entry of an amendment (to be filed) containing definitions for the terms "Fourier Series in Fourier Space" and "Probability Operand."

This application, by virtue of its "special" status, requires immediate action by the examiner. *See* MPEP § 708.01(d). The Board of Patent Appeals and Interferences must be informed promptly of any action affecting the appeal in this case, including reopening of prosecution, allowance and/or abandonment of the application.

REMAND TO THE EXAMINER



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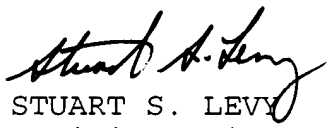
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